

FACULTY PROFILE

1. Name : **Dr. R. Sarjila**
2. Designation : Assistant Professor
3. Qualification : M. Sc., B. Ed., M. Phil., M. E., Ph. D.
4. Mobile number : 8015153323
5. E-mail id : sarjilar@auxiliumcollege.edu.in
6. Teaching Experience : 17 years
7. Area of specialization : IoT, Solar Photovoltaics
8. Research Experience and Guidance :
 - **Ph. D.** - Investigations on Application of Heuristic Techniques for Parameter Extraction and Maximum Power Point Tracking in Photo Voltaic system. – Vellore Institute of Technology, Vellore, Tamil Nadu, India.
 - **Guided M.Sc. Students:** 07 Nos.
9. Projects Completed / Ongoing : Nil
10. No. of Papers Published in Journals : 07
11. No. of Papers Presented in the National/ International/ Seminars/ Workshops/ Conferences : 09
12. No. of Seminars/Workshops/Conferences organized : 03
13. No. of Books Published/Edited/Co-edited : Nil
14. Responsibilities held
 - Department Quality Assurance Cell Coordinator (DQAC)
 - Tutor for PG Students.
 - Mentor for PG Students
 - Quiz Club Coordinator
15. Current Responsibilities
 - Department Quality Assurance Cell Coordinator (DQAC)
 - Tutor for PG Students.
 - Mentor for PG Students
16. Membership in professional bodies (Descriptive)
 - Life member - The Indian Society for Technical Education – LM83041.
17. Other bodies (Descriptive)
 - Member of Board of Studies Meeting
18. Honors & awards received (Descriptive)
 - **First Rank Holder, M.E.** in Applied Electronics, VMKV Engineering College, Salem, Dec 2009
19. No. of Online Courses completed (Minimum of 4 Weeks): 04
20. Any Other (Descriptive)
 - Consultancy work – Bharathidasan group of Schools – Physics Text book proof reading
 - Reviewer – IEEE International Conference i-PACT2017, i-PACT2019, i-PACT2021 & i-PACT2023

PUBLICATIONS

Publications in Journals

- R. Sarjila and K. Ravi, 'A Self Tuned Adaptive Maximum Power Point Tracker for a Photovoltaic Power System', Journal of Engineering and Technology, ISSN 0973-2993, March 2017, Vol. 12 Issue 1, pp14-22.
- R. Sarjila, K. Ravi, J. Belwin Edward and K. Sathish Kumar, 'Parameter Extraction of Solar Photovoltaic Modules Using Gravitational Search Algorithm', Journal of Electrical and Computer Engineering, ISSN 2090-0147, December 2016, Vol. 12, Issue 1, pp1-6.
- R. Sarjila, K. Ravi, J. Belwin Edward, Avagaddi Prasad and K. Sathish Kumar, 'An AIS Based approach for Extraction of PV Module Parameters', Information Systems Design and Intelligent Applications, ISSN 2194-5365, February 2016, Vol. 435, Issue 1, pp405-422.
- Edward JB, Ravi K, Sarjila R, Sakthigokulrajan C and Prasad A., 'Optimal Rating and Position of Distributed Generators under Variable Loading Conditions using Bacterial Foraging Algorithm', Indian Journal of Science and Technology, ISSN 0974-6846, December 2015, Vol. 8, Issue 35, pp1-6.
- Rini Venugopalan, Neeraja Krishnakumar, R. Sarjila and N. Rajasekar, 'Application of Particle Swarm Optimization Technique for the Design of Maximum Power Point Tracking', Advanced Material Research, ISSN 1662-8985, September 2013, Vol. 768, Issue 1, pp47-56.
- J. Belwin Edward, N. Rajasekar, K. Sathiyasekar, N. Senthilnathan and R. Sarjila, 'An Enhanced Bacterial Foraging algorithm for optimal power flow problem including FACTS devices considering system loadability', ISA Transactions, ISSN 0019-0578, September 2013, Vol. 52, Issue 5, pp622-628.
- Ramanathan, P., Marimuthu, R., Sarjila, R., Ramasamy, S., Arulmozhivarman, P., 'Performance Comparisons of interface circuits for measuring capacitances', Journal of Theoretical and Applied Information Technology, ISSN 1992-8645, May 2012, Vol. 39, Issue 1, pp1-5.

Publications in Proceedings

- Vyshnavi Gogula, Belwin Edward, K Sathish Kumar, I Jacob Raglend, K Suvvala Jayaprakash, R Sarjila, High-Impedance Fault Localization Analysis Employing a Wavelet-Fuzzy Logic Approach, International Conference on Advances in Data-driven Computing and Intelligent Systems, Springer Nature Singapore
- Interpretation of PMSG Based Wind System with High Gain Converters and MPPT Controllers, Kumar, K., Devi, V.L., Prasad, A., Sarjila, R., Edward, J.B., 2021, 3rd IEEE International Virtual Conference on Innovations in Power and Advanced Computing Technologies, i-PACT 2021.
- Indoor Automated Vertical Farming Using the Concept of Microgrid, Gowrishankar, J., Balasundaram, G., Raglend, I.J., Edward, J.B., Rajan, V.R., 2021, 3rd IEEE International Virtual Conference on Innovations in Power and Advanced Computing Technologies, i-PACT 2021.
- Implementation of Modified Gravitational Search Algorithm for Solar Panel Parameters Extraction, Sarjila, R., Ravi, K., Belwin Edward, J., Manimegalai, A., Innovations in Power and Advanced Computing Technologies, i-PACT 2019.
- R. Sarjila and K. Ravi (2018), A review on Parameter Extraction Schemes for Solar Photovoltaic Systems, in 'National Conference on Communication and Networking', NCOCN-2018, pp. 66-74.
- R. Sarjila, Bacterial Foraging Algorithm based parameter estimation of solar PV model", IEEE International Conference on 'Microelectronics, communication and Renewable Energy'(AICERA 2013: ICMiCR) during 4th - 6th June 2013.
- R. Sarjila, Application of Particle Swarm Optimization Technique for the Design of Maximum Power Point Tracking", IEEE – International conference on Energy Efficient Technologies for Sustainability, 10th - 12th April 2013.

- Fusion of MRI and CT using wavelet transform, National conference on Convergent communication technologies (NCCCT- 09) on 17th April 2009, organized by Department of ECE, VMKV Engineering College, Salem.
- Growth of Whewellite crystal added with some headache killing drugs, First Multi-Disciplinary National Seminar of Scott Research Forum (SRF), Scott Christian College, Nagercoil, on 24th Sep 2004.

FDP's/ Seminars/ Workshops/Webinars

- National Workshop on “**Intellectual Property Rights**”, Organized by TNSCST, Research and IPR Cell, Auxilium College, Vellore, 13 Sep 2019.
- FDP on **Enriching & Enhancing the Effectiveness of Teaching using 21st Century Skill Sets**, organized by Auxilium college, Vellore and The Haskalah Academy, 5-7 JUN 2019
- Workshop on **Laboratory Practical Skills Training in Electrical Engineering**, VIT University, Vellore, 2 & 3 AUG 2019.
- FDP on **Synergia to Revitalize, Reform and Refresh ourselves as agents to ensure Quality Education** organized by Auxilium college, Vellore, 01-06-2020 to 07-06-2020.
- FDP on **Evolving best teaching and learning practices in the pandemic era 2**, organized by Auxilium College, Vellore, 15-06-2020 to 21-06-2020.
- FEP on **Cell Designer** organized by Department of Biochemistry, Auxilium College, Vellore, 25-05-2020 to 31-05-2020.
- FDP on **LaTeX and Scilab** organized by Department of Mathematics, D.K.M. College for Women, Vellore, 30, April 2020 to 04 May 2020
- 7 Days FDP on **GChemPaint and LibreOffice Suite Writer** organized by Department of Chemistry, D.K.M. College for Women, Vellore, Tamil Nadu, 04-10, May 2020.
- National level intercollegiate Online FDP on “**Outcome Based Education**” organized by Auxilium College, Vellore & IPSR Solutions, 22/11/2021 to 27/11/2021.
- One week FDP on “**Patents and innovative teaching & Research methodology**”, organized by Bishop Heber College, Trichy, 02/03/2022 to 06/03/2022.
- 5-week online FEP on “**Libre office Suite writer, Calc and Impress**”, organized by Auxilium College, Vellore, 26/05/2022 to 10/06/2022.
- 2-days workshop on “**Laboratory Practical Skills Training in Electrical Engineering**” held on 15th and 16th June 2017 at VIT University, Vellore
- 2-days Workshop on “**Arduino Based Designs**” on 11th and 12th March 2016, at GTEC.
- 1-day national workshop on “**Power Systems Planning in Smart Grid**” held on 15 October 2016 at VIT University, Vellore.
- 2-day National Workshop on “**Embedded Systems Architecture and ARM Processors – Hands on**” held on 22nd to 23rd July 2016 at VIT university, Vellore.
- Attended online course on “**Geoweb Services and Geoportal applications**” conducted by IIRS from June 28, 2016 to July 15, 2016.
- 2-day Faculty Development on “**principles of Digital Signal Processing**” on 9-10, June 2016 at Rajalakshmi engineering college.
- Attended the basic course on “**Remote Sensing, Geographical Information system & Global Navigation Satellite System**” Conducted by IIRS from Aug 10 to Nov 27, 2015 at GTEC.
- 2-day National workshop on “**Make your own PCB design**” on 3rd & 4th Feb 2015 at GTEC.

- 2-day hands –on training on **“problem solving of Electrical power Engineering using Modern Software Tools”** on 20th & 21st March 2015, at VIT university, Vellore.
- 1-day workshop on **“Software Defined Radio”**, on 15th July 2015, at GTEC.
- 1-day FDP on **“Research Methodologies using MATLAB”** on 28th Oct 2015 at GTEC.
- 1-day Training program on **“Design Trends in Adobe Photoshop”** on 6th Nov 2015, at GTEC.
- 1-day seminar on **“ Energy and water conservation Awareness”** on 19th Nov 2015, at GTEC.
- 2-days FDP on **“ Robotic designs using AVR and Arduino “** on 20th & 21st Nov 2015, at GTEC.
- 1-day national level Technical seminar on **“ Digital India”** held on 15th Dec 2015, at GTEC in association with IEEE Madras section.
- 2-day national level workshop on **“Challenges in power system Monitoring on control”** on 25th and 26th April 2014 at VIT university, Vellore.
- 1-day National workshop on **“VLSI to MEMS & NEMS Era”** on 12th May 2014, at GTEC.
- 4-days FDP on **“Design of Electrical and Electronic Circuits and Networks“** on 24th to 27th June 2014 ,at GTEC.
- 2-week National workshop on **“Analog Electronics”**, School of Electronics Engineering, VIT University, Vellore, 4th to 14th June 2013.
- 2-day National workshop on **“Recent Trends in Energy Management System”**, School of Electrical Engineering, VIT University, Vellore, 1st and 2nd March 2013.
- 2-day ISTE workshop on **“Research methods in educational technology”**, NMEICT (MHRD, Govt. of India), 2nd and 9th February 2013.
- 2-week ISTE workshop on **“Introduction to Research Methodology”**, NMEICT (MHRD, Govt. of India), 25th June to 4th July 2012
- 2-day ISTE workshop on **“Writing Effective Conference paper”**, NMEICT (MHRD, Govt. of India), 18th and 19th Feb 2012.
- 2-week ISTE workshop on **“Software Development Techniques for teachers of Engineering and Science Institutes”**, National Mission on Education through ICT (MHRD, Govt. of India)–VIT University (Remote centre) Nov 5th to Dec 4th, 2011
- 2-week ISTE workshop on **“Basic Electronics”**, National Mission on Education through ICT (MHRD, Govt. of India) –VIT University (Remote centre) June 28th to July 8th, 2011
- State level Seminar on **“E-media and education”**, organized by Annammal College of Education for Women, 6th and 7th December 2002.
- Seminar on **“Effective Class room Communication”**, organized by Annammal College of Education for Women, 14th December 2002.
- Completed one year **“Office Automation Course”** conducted by Annammal College of Education for Women, Tuticorin, during 2002 – 2003.
- Webinar on **“Dating Sand Using Luminescence”** , organized by Voorhees College, Vellore, June 6th, 2020.
- International Webinar on **“Recent Trends in Material Science”**, organized by Muthurangam Govt. Arts College (A), Vellore, June 6th 2020.
- Webinar on **“Materials to Device Applications”**, organized by Sree Ayyappa College for Women, Nagercoil.

- International Webinar on **“Connecting the Dots between Biochemistry-Bioinformatics-Genomics for a road towards precision medicine”**, May 28th 2020.
- International Webinar on **“Optical Sources and Their Applications “** organized by QUBIT Physics Society, Bhaskaracharya College of Applied Science, Delhi, May 28th 2020.
- International Webinar on **“Recent Trends in Physics”**, organized by Joseph’s College (Arts & Science), Kovur, Chennai, June 12th,2020.
- Webinar on **“Nano Materials”**, organized by Research Department of Chemistry, Sadakathullah Appa College, June 6th 2020.
- Second National Conference on **“Advanced Materials and Applications”** Organized by Auxilium college, 13th and 14th October 2022.
- 2 Day State level workshop on **" Intellectual Property Rights"** , Organized by Auxilium college, 2nd and 3rd AUG 2019.
- National Seminar on **“Material Science”**, Organized by Department of Physics, Auxilium College, Vellore, 13th September 2019.
- National webinar on **" Modeling of Novel Materials Through Atomistic Molecular Dynamic Simulations”**, organized by Department of Physics, Auxilium college, 11th JUN 2021.
- International webinar on **" Sensors and Applications"** organized by Department of Physics, Auxilium college , 22nd and 23rd JULY 2021.
- National Conference on **" Teaching, Learning and Evaluation: Changes and Challenges,** Organized by Auxilium College, Vellore, 30 & 31 January 2020.
- International webinar on” Nanotechnology in Aerospace “ organized by Department of PG Physics, Auxilium college 22nd JUN 2020.
- **National Webinar on “Green campus initiatives towards sustainable development”** organized by Internal Quality Assurance Cell (IQAC), Auxilium College (Autonomous), Gandhi Nagar, Vellore on 29.07.2023.
- National Webinar on **“ Application of Physics in Medicine”** jointly organized by PG & Research Department of Physics, Auxilium College, (Autonomous), Vellore, and Department of Physics, Little Flower Degree College, Hyderabad, on 22 August 2023.
- National Webinar on **“Publish and Progress”** organized by IQAC Committee for Research Ethics and Publications and IPR & Library, Auxilium College (Autonomous), Vellore on 26.8.2023.
- Webinar on **“Functional Novel Materials for Electrochemical Sensors and Energy Storage Devices”** organized by Thiagaraja College, Madurai, on 15th May 2020.
- Webinar on **“ICT For Effective Physics Teaching Learning and Evaluation”** organized by Department of Physics, Stella Maris College, Chennai, on 18th May 2020.
- Webinar on **“Micro & Nanotechnology and its Applications”** organised by Department of Physics, G.T.N. Arts College, Dindigul, on 14th May 2020
- Webinar on **“Crystallography and its Applications”**, organized by Department of Science and Humanities, Er. Perumal Manimekalai College of Engineering, Hosur, on 08th May 2020
- webinar on **“Electron Microscopy: an essential tool for nanomaterials characterization”** organized by Department of Electronics and Physics, Hindusthan College Of Arts And Science, Coimbatore, on 29th May 2020.
- Webinar on **“Super capacitors new age energy storage devices”** organized by Ayya nadar Janaki ammal College on 19th May 2020.